GEORGE W. YORK, Editor.

AMERICAN BEE JOURNAL.

ESTABLISHT IN 1861 OLDEST BEE-PAPER IN AMERICA

DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY-PRODUCERS.

39th YEAR. CHICAGO, ILL., JANUARY 5, 1899. No. 1

CONTRIBUTED ARTICLES

Size of Frame to Use in Queen-Rearing.

BY G. M. DOOLITTLE.

A CORRESPONDENT says he is a reader of the American Bee Journal, and requests that I give my views in that journal regarding the size of frame that it is best to use when rearing queens. He wishes to rear queens next year, and is undecided whether to use the regular size frame for that purpose or make a smaller size especially for queen-rearing. And, as he wishes to make the preparations this winter, he is anxious that what I have to say will appear during the winter months, so it may be of use to him.

This may appear to be a matter of no general interest, but when it is fully understood that those who rear their own queens for general use in the apiary are the most successful honey-producers of the world, I think more interest will be taken in this part of our pursuit. There is scarcely an apiary in the land but what its owner realizes that he has in it one or two queens of more than ordinary value, but fails to breed for these valuable qualities because he does not understand queen-rearing; and so he lets the "goose which lays the golden egg" die without any special value to his stock accruing from her life, because he is not informed in the queen-rearing branch of apiculture. No person is an accomplisht apiarist until he is a thorough master of the queen-rearing part of the business. With these few words regarding queen-rearing in general, I will now write regarding the size of frame which should be used, according to my ideas, based on nearly 30 years' experience.

During these years of trial as to which is the best size of frame to use in queen-rearing, I have failed to find any special advantage in a small frame, while, according to my views, there are many disadvantages; therefore, I have come to the conclusion that it is the part of wisdom to use the same size of frame in any nucleus hive that we are using in the hive which we have adopted for general use in the apiary. As we are used to handling these frames we can handle them more rapidly, and with less injury to the bees and combs than we can those of an odd size, thus saving time in our work, and avoiding that irritation to the bees which causes them to annoy their keeper by following him around and trying to sting him and everything else that happens near the hives.

With me it is much easier and more expeditious to handle one or two full-sized frames than three or four small ones. Then the bees work more to our profit where the regular size of frame is used. If any comb is built by the nuclei it is in just the frames we want it, and always of the size of cells we wish, as these small colonies build only worker-comb where the young queen is left long enough for them to build comb. Where I have had combs in which the mice had gnawed holes, or the bees have made holes in them by cutting out moldy pollen, or in which there happens to be some drone-comb of more or less amount which I have removed, I always give them to these nuclei when forming them, and as soon as the young queen commences to lay, the bees will commence to build comb and repair these places, if honey is coming in from the fields, or if fed when no honey is to be obtained.

By leaving the young queen with them the length of time required, we have our combs all made as good as those built out on foundation, save the cost of foundation and the fuss of putting it in the frames, while such mutilated combs are just as good to form nuclei with as whole combs.

By a little looking over our combs each year, sorting out all those not being quite up to the standard, and using them as above, all the combs in the apiary can be kept in perfect order for all time, unless the cells should become so filled with cocoons as to become too small to rear bees in—a thing which has not happened in my apiary during the past 30 years.

G. M. Doolittle.

Again, if we use the regular size of frames, all the honey stored in these will be right where it will be of use to us for any colony in the apiary, either for spring, summer or winter use, so that we do not have to store away a lot of

combs and honey at any time of the year because it is not in shape for use.

In connection with the regular size frame I would always use the regular size hive for nuclei. Why? Because in this way we have nothing which will be a loss to us, and by using the regular hive we are ready to unite for winter on any stand we desire, without changing hives or anything of the kind, or can build up any nucleus into a full colony at any time.

But, as I consider it, the greatest advantage in the full regular size hive comes in not having our nuclei robbed out occasionally, as is almost sure to happen with some of the weaker ones, where small hives are used. Such robbing causes a general demoralization of the whole apiary, often to such an extent that the bee-keeper almost wishes that he had never known such a thing as a bee. By using the regular size hive, and placing the nucleus on one side of it, while the entrance is at the other side no nucleus large enough to hold a queen to advantage will ever be robbed out, and smaller than these should not be used.

To help the reader to understand better we will suppose that the regular hive is 14 inches wide inside, and that the entrance used is cut from the front board at the bottom, the whole length of it, and that the hive fronts south. Form your nucleus on the east side of the hive, using two combs, one of honey and one of brood; and next to these combs draw up the division-board or dummy, which should allow the bees to run under its bottom. Now close up all the entrance except one inch in length at the west side of the hive, and you will have it as I use them, and I have not had a single nucleus robbed since I found out this plan.

Now, suppose I wish a nucleus in the next hive on the same row in the apiary. In this hive I place the two frames and dummy next to the west side of the hive, while the entrance is on the east side, the conditions being the same as relating to the prevention of robbing, while the doorway to each hive is not at all similar. The next hive is fixt like the first, and the next like the second, and so on to the end of the row. In this way the young bees do not mix; and in returning from their wedding-flight no queens are lost by entering the wrong hive, as used to happen when I used an entrance in the same place with all the nuclei in the apiary. I consider this far preferable to painting the fronts of the hives containg nuclei, of different colors, or laying sticks of wood about the hives, etc., as has been recommended so many times in the past.

If the nucleus becomes stronger than is profitable on the two frames, move out the division-board and give them an empty frame with a starter of comb foundation, and see how quickly they will fill it with beautiful worker-comb. If too weak for the two combs, take away one and draw the division-board up so that it is suited to the wants of the little colony, thus always working to the best advantage, and making everything done by any or all count on the right side of the ledger page.

Onondaga Co., N. Y.

An Appeal for Co-operative Experimental Work in the Apiary for 1899.

BY R. C. AIKIN.

MOST apiarists do more or less experimental work. We might say that life, as it relates to our actions, is one long list of experiments. Experiment and research are necessary to advancement. He who is the most advanced is the man possessing the greatest aggregation of ideas.

To progress it is necessary that we think and experiment, and collective and extensive work carried on by many men and minds will progress more rapidly than if limited to narrow channels, both as to scope and to minds directing.

I am a natural investigator. Tho inheriting the inquisitive disposition, I did not inherit the filthy lucre to enable me to prosecute investigation to advantage, hence my efforts are, and always have been, very handicapt. The season I plan to work out certain lines of thought, often proves to be a very poor one for that line of work. Then, too, it takes several different kinds of seasons, and a great variety of conditions, to prove a theory.

Suppose we plan certain work for the coming season, and to carry out the experiments 10 or 20 apiarists in as many locations and under many and varied conditions, all join in the work, then compare notes—how great progress we might make in a single season! The same work in the hands of one man would be years in attaining the desired result—often would be abandoned in despair.

I am now going to appeal to the fraternity to assist me in some work for 1899. I will tell you some things I want demonstrated, how I propose doing it, and why. Others can no doubt help me in planning the details of the experiments, and can help in carrying them through. I do not want to name those who shall help, preferring to get volunteers. I do not know who can and will do the work, but you, reader, know for yourself and can offer your services. I think that a volunteer will do better work than a drafted man.

But you will want to know what we are to try to demonstrate, what theories we want to prove or disprove. I will name some of them:

PRODUCTION OF COMB HONEY VS. EXTRACTED.

It is said, and believed by many, that an apiary run for extracted honey, and with ready-made store-combs, will yield more surplus than will a similar apiary managed for section honey and having to build combs. The proportion of extracted over that of section honey is variously estimated at from one-fourth more all the way to three times as much. My own belief is, that where intelligent management is practiced, and in an average location, the surplus will not exceed the proportion of four to five in favor of the extracted.

I do admit that in basswood flows, or any flow that comes on *very abrupt* and *free*, honey may be lost where comb has to be built to receive it; but, while admitting this, I do think that to put out the unqualified statement that so very much larger yields can be obtained by running for extracted, and placing such before the average reader, is not doing the right thing. I am now nearing 25 years of quite extensive apicultural experience, and scarcely a year that I did not produce both comb and extracted honey, having very little basswood, buckwheat and cleome, white clover, red clover, heart's-ease, Spanish-needle, alfalfa and sweet clover crops, and in all these years, and from the varied sources, and both summer and fall flows, never did I obtain twice as much extracted as of comb, per colony. Do you wonder that I want more positive support of the popular belief?

DIFFERENCE IN HONEY RESULTS BETWEEN COLONIES.

Another thing I want to see demonstrated, is the difference in work accomplisht between a colony largely of young bees, and one whose bees are all of field-age. The reason for this experiment is to demonstrate the necessity of a good stock or supply of old bees in a colony to make it a good honey-gatherer. I believe that herein lies much of the difference in amount of surplus put up by one colony as against another that should *apparently* do equal work.

UNQUEENING DURING THE HONEY-FLOW.

A third experiment is to demonstrate the effect of removing a queen from the colony during the honey-flow. Many claim that a colony made queenless will not work with the vigor of one retaining the queen in full laying. It has been my practice for several years to unqueen about the beginning of the flow, and for several reasons. I have for nine years been running from three to five apiaries. All these years I never pretended to remain in the various yards to manipulate swarms, but visited each place as often as I could at intervals of one to three weeks. I have largely unqueened to prevent swarming.

A second object was to have only sealed brood, or nearly so as possible during the main harvest, that the colony might give its whole attention to the work of gathering and storing. The advocates of natural swarming claim that the colony without a queen—even the one retaining its queen but not swarming—will not store equal to one allowed to swarm. Direct and comparative tests side by side, and date for date, are necessary to thoroughly demonstrate the matter and show it in a clear light.

OTHER IMPORTANT QUESTIONS.

Then there are the matters of big hives vs. little ones, big colonies vs. little ones, and a whole lot of unsettled matters. One question that is a factor in nearly all of the others, is the one of wax-secretion. We are taught, and the teaching has been generally accepted as correct, that for each pound of wax built into comb we have lost from 15 to 25 pounds of honey. Some put the loss of honey much higher than this.

It is argued that the production of wax costs directly the consumption of not less than 15 pounds of honey for one of wax produced; that the bees secreting this wax and building the comb, if not thus engaged would be in the fields after nectar; thus we have not only lost directly the 15 pounds of honey necessary to the secretion of the wax

(just as liberal feed is necessary when a cow is secreting milk), but in addition we lose in varying quantities what these same bees might have gathered from the fields if freed from secreting and working wax.

Contrary to all this, I believe that all normal colonies, when gathering nectar and ripening and storing the same, secrete more or less wax regardless of the need of it; and more, that the secretion and manipulation of this wax is principally by bees *under* field-age—bees that would have been idle if not thus engaged. It seems to me that those who make claim to the doctrine of the great loss of honey when a colony has to build comb, make this assertion without due consideration of all the facts. Let me offer a few figures:

A 10-frame hive, Langstroth size, takes nearly two pounds of wax to construct its comb. Surplus honey from the same hive to the amount of 25 pounds, means about three pounds of wax secreted, which, at the ratio of 15 of honey to one of wax means 45 pounds of honey consumed in comb construction. Suppose that the loss by bees being detained from the fields that otherwise would have been there—say reducing the field-force one-third, amounts to one-third the total honey gathered. This would be reasonable surely. The brood-combs should contain not less than 35 pounds, which added to the 25 of surplus received would make 60 pounds. Thus the bees kept secreting wax and building it into comb, should have instead added to the total store another 20 pounds.

Put these figures together and what have we? Forty-five pounds of honey *consumed* in wax-secretion, 20 lost by bees kept at home—total 65 pounds. If such a theory is correct, a *swarm* hived and building *all* its comb and yielding a 25-pound surplus, should, if given all the comb they could use, have yielded, in addition to the 25 pounds, 65 more—a total of *90 pounds of surplus* honey.. Is not this a reasonable conclusion?

My next will discuss details of experiments to prove the truth or fallacy of the general accepted theories.

Larimer Co., Colo.

Large Hives for Either Comb or Extracted Honey.

BY C. P. DADANT.

THE following letter, which was sent to the Editor of the American Bee Journal, is referred to me for reply:

EDITOR YORK:—I think that many who are trying to solve the hive question will be misled by Mr. Dadant's articles on the proper (?) size of hive. It should be remembered that Mr. Dadant is an extracted-honey man. I have lookt in vain through his writings for his emphatic advice to use just as large a hive for comb honey as for extracted.

I wish Mr. Dadant would answer this question: Do you advise just as large a hive for comb as you do for extracted honey?

Until I became a specialist, two years ago, I used the 10-frame Langstroth size, exclusively. After trying 8-frame and 10-frame hives in the same yard, I have come to the conclusion that I can get more comb honey per brood-comb with the smaller hive, and have fewer unfinisht sections.

I now think that those "who make their bread and butter by producing honey to spread upon the bread and butter or others," should figure their production as so much per comb, and not so much per queen.

After everything has been considered I think it will stand about this way: If you have nothing but the care of your bees to take up your time you will probably make more money with a small hive. If you have a farm to work, you would better use a larger hive.

Yours truly, E. W. BROWN.

I would very much dislike to mislead any one, in whatever I write on bee-culture, but most especially on the hive-question, which, as is well known, we have tried to avoid, as it has been so often rehearst and discust that the subject has become stale to us. But it appears that, as others find that we succeed with a large hive, and hear that we prefer it to others, and have good reasons for so doing outside of our practical experience, they make inquiries about it, and this is why I have been requested to write a series of articles on the subject in Gleanings. So, if the subject proves worthless, and our experience proves injurious to the bee-keeping public, we will not feel as deserving of any blame.

I am very free to say that we are not at present comb-honey producers. All the comb honey that is produced in our apiaries is produced by our boys, for their own pleasure, on one, two or three hives, every season, and I notice that they take particular pains to select a very powerful colony in every case. But we *have been* comb-honey producers, and would be yet if we could get more than twice as much for comb honey as for extracted. But as long as we can sell extracted honey freely for three-fifths to two-thirds of the price we would get for comb, we will probably produce extracted honey.

The experience of Mr. Brown we notice to be similar to that of many others. They try a small hive—the 10-frame hive—and finally change to something still smaller. We tried the 10-frame Langstroth hive with something still larger, and changed to the latter.

I have often noticed that the supporters of small hives agree that the large hive may be good for extracted honey, but is not suitable for comb honey; but I have never seen any one give a single reason for making this difference. The only attempt I have met to an explanation of the difference, is in an article by G. M. Doolittle, in Gleanings, in which Mr. Doolittle says:

"If the queen has all the vacant cell-room her prolificness requires, more room is only a damage to our crop of comb honey, for in the finding of vacant cells in the brood-chamber, at the beginning of the honey harvest, comes an 'accustoment' to the brood-chamber for storing honey, instead of the sections, and thus the queen is crowded upon with honey, instead of said honey going into the sections," etc.

That is, if there is honey produced, with a large hive and not a very prolific queen, and there is plenty of room in the brood-chamber, this honey will be stored in the brood-chamber. This is just our experience, and when producing comb honey with large hives, we would do as some of the large producers of the East are doing, so I am told, who

C. P. Dadant.

have nothing to say publicly, tho they quietly work and produce tons and tons of honey, by simply reducing the number of combs, just at the opening of the crop, to the exact number that are covered by the brood, which just as efficiently forces the bees into the supers as if a very powerful colony had been placed in a small hive.

When we produced comb honey, let it be remembered, we were already using the large hives, and we did not practice the above-mentioned method, which I am told is so very successful with men like Elwood; and the result was, with us, that we always had too much honey in the brood-combs for winter, and we were in the habit of extracting it; but I wish to emphasize the fact, that, side by side with smaller hives, our colonies were, on the average, ahead of the others, just that quantity of honey which we were able to take from the brood-combs.

Now, please bear in mind that our experience was not based upon a hive or two, or upon one year or two, but that we have had as many as a hundred hives of one style, while we had two or three hundred of the other style, for years. It has always been a wonder to me, how comb-honey producers could do without an extractor, and this owing to the fact that, in large hives, we always had some that had more honey in the brood-combs than they needed for winter, when producing comb honey. The Elwood plan would have done away with this, and would have forced the bees to put that honey in the supers, since the hive, in cases where the

queen lackt in prolificness would have been reduced or kept down to a size proportionate to the strength of the colony.

Now, please do not accuse us of saying that, with comb-honey production in large hives, you will have no swarms. We do not even say that, of our own methods, with extracted-honey production. But we do say, and we know every man who tries it will acknowledge, there will be less swarms, many of the colonies will be stronger, and the production of honey, on the average, considerably greater, since there will be a greater average production of bees in the hive.

Mr. Brown says: "If you have nothing but the care of your bees to take up your time, you will probably make more money with a small hive. If you have a farm to work, you would better use a large hive." But he does not tell us why. When some of our bee-men discuss the hive-question, they seem to take it for granted that the small-hive bee-keeper has all the colonies he can manage at the opening of spring, and that it is of little jmport whether all his queens have all the room they need. Mr. Hutchinson says, "Queens cost nothing." We can't take it from that point of view. Queens, to us in early spring, are the most expensive part of a colony, and we want each queen, in every one of our colonies in early spring, to have all the room she needs. If we have 80 colonies in one apiary, we want each one of those 80 queens to have the very best chance possible to display its powers, and we consider that the cost of the hive, which has to be replaced only about once in 30 years, is the smallest item of expense. The interest on the money-cost of a large hive, as compared with that of a small hive, is not to exceed 10 cents per year. This represents a necessary production of only about one or two pounds of honey more each year; and when we consider that a large hive may be made as small, by a division-board, as the smallest hives in the land, and can still, at a moment's notice, accommodate the very best colony in the country, with increast facilities for manipulation, we can but shrug our shoulders at the idea of any return to small hives, even if we desired to return to comb-honey production. Does this answer Mr. Brown's question?

Now, Mr. Editor, I sometimes think that it looks as if we had an ax to grind on large hives, but we have no patent, never did have, and don't care—no, not a copper cent—whether any one tries our methods or not. We know that it takes more of a bee-keeper to manage the large hives than the small ones, and therefore have no hesitancy in referring bee-keepers to the warning I gave some weeks ago, on trying new things, tho ours is not a new thing, neither is it our own idea, but only a putting in practice of the ideas advanced by masters in the art long before us.

And as to the pride we might take in creating a larger following among the bee-keepers of the land, we are past that, too, for we have pupils and followers of whom we can well be proud, all over Europe and America, northern and southern. Hancock Co., Ill.

No. 1.—The "Golden" Method of Producing Comb Honey Described.

BY J. A. GOLDEN.

I HAVE been requested by the Editor of the American Bee Journal to contribute a series of articles relative to my method of producing comb honey, for the benefit of its readers, with discriptions of the manipulations of my combination comb-honey hive, the idea of which I donated to the bee-fraternity of the world free and unstained from patent, altho letter after letter has been received asking why I don't secure a patent on my hive, and make myself independently rich. My answer has invariably been, "No, no." For the reason that patented articles deprive thousands of poor bee-keepers from competing with their more wealthy competitors, providing the implement or method patented has superior advantages over the former. Realizing this fact in my own circumstances in life, I could do no better deed for my brother and sister bee-keepers than I have done in presenting the Golden method as previously stated, believing it to be far more profitable.

What I wish to say in regard to the Golden hive and method in this series of articles will be founded on practical experience, and not on theoretical knowledge.

As hundreds of new apiarists have engaged in our pursuit since my method was publisht in 1896, and are reading and hearing reports from bee-keepers who are working the Golden method with grand success, even realizing more than double the amount of surplus honey per colony than from all other colonies by other methods, therefore, in presenting my method and hive before the readers of the American Bee Journal I shall do so honestly and truthfully. My object, then, will be to place before the bee-keepers of the world a system of producing comb honey which, in my judgment, will in time become the general method for the production of section comb honey.

But before doing so, permit me to insist that all who *can* will please re-read Mr. C. P. Dadant's wise letter of advice on page 675 (1898). It is chock-full of wisdom, and the result of many years of a practical life in apiculture. Then let us all revere Mr. Dadant for his words of advice, which will prove to be drops of gold to many bee-keepers if heeded.

In 1895–96 I was experimenting with the two-queen system, and by this method a tremendous force of workers or field-bees were reared and ready for storing nectar when the flow came, but being a close observer I soon discovered that such an army of workers could not freely enter the hive, having to crowd their way through in order to deposit their loads of nectar and pollen, and altho the entrances were enlarged it did not seem to lessen the difficulty. It was then that I began to theorize upon the great improvements of Father Langstroth and others, and the thought suggested itself to my mind that men of long experience have from time to time been writing of different methods of the production of comb honey, and thus much valuable knowledge is gained by those who read the bee-papers and practice the valuable suggestions therein taught; however, there are thousands perhaps who yet claim, boastingly, that they know more than the bee-papers teach, and still persist in thumping the old tin pan and ringing the old preserved cow bells of a hundred years ago.

Thus, after due consideration, I conceived and put in practice two hives having side passage-ways fom the bottom of the brood-chamber to the supers, having the outside made of glass, and as I was using the house-apiary my hives were rather crude. However, they answered the purpose, and the next day after the change was made, after spending an hour looking through the glass watching the thousands of little workers marching up the side entrances to deposit their loads of nectar, I noticed the entrance comparatively free and easy of access. I called to my good wife and assistant to come and behold a new and great discovery, that in time would supersede all other methods for the producing of comb honey, providing swarming could be controlled so as to keep the great army of workers in an unbroken compact.

Then the thought suggested was, Why not hive the swarm in what we termed "a double super," containing 48 sections? This was adopted, and success was the result. This method I have manipulated ever since, and have no desire for anything better, believing it the most simple and profitable method for the production of comb honey that I am acquainted with. Morgan Co., Ohio.

[To be continued.]

CONVENTION PROCEEDINGS

UNITED STATES BEE-KEEPERS' UNION.

Report of the 29th Annual Convention, held at Omaha, Nebraska, Sept. 13-15, 1898.

DR. A. B. MASON, Secretary.

SECOND DAY—EVENING SESSION.

[Continued from page 819.]

RELATIONS BETWEEN BEES AND ALFALFA.

Prof. Hunter, of Kansas, was then introduced to the convention, and in acknowledging the introduction he stated that he had been conducting some experiments within the past year upon the matter of the relations between the bee and alfalfa.

Dr. Miller—Won't you give us in a few words the result of your investigations concerning alfalfa?

Prof. Hunter—I was very much interested in what I saw in one of the Omaha papers of yesterday concerning some discussion that had been had before this convention regard-

ing sweet clover and alfalfa. I observed that there was a difference of opinion among you, but the reporter for the paper did not give any definite information as to what the sense of the association was. I have been working along this line somewhat, but there are men here who would naturally be better informed than I am as to the relative value of the two plants. The experiments that we have gone through with during the past year have shown that the value of alfalfa depends upon conditions—that in different circumstances there is a difference of results. Irrigated alfalfa does not give us the honey results that we get from alfalfa which has had a moderate degree of moisture from natural sources; and where it is on dry ground, entirely free from all humid influences, we get little or no nectar. I do not know whether that answers the question or not; but those are the three points that we have been working upon.

Dr. Mason—Are you sure you haven't made a mistake about that matter of irrigation and moisture in the air, and its effect upon the honey-yield?

Prof. Hunter—I am giving you the results of the experiments that have been conducted thus far.

Dr. Mason—Science sometimes makes great mistakes.

Prof. Hunter—I am always willing to grant that. One season's experiments would not allow me to give what might be called conclusive results. The theory that we have now is that irrigation simply affects the root of the plant, and its growth, while humidity of the atmosphere would more affect the blossoms. There is a certain percent of moisture taken from the atmosphere by the plant that would not be taken by the roots; that is, there are certain chemical changes that take place in the plant and in the flower, that we are not able to perfectly understand, but the theory is that the different conditions are produced by the different effects from irrigation and from rainfall. Irrigation does not give the humidity of the atmosphere that rainfall does.

Mr. Danzenbaker—Which is better?

Prof. Hunter—Rainfall gives better results.

Mr. Whitcomb—You were speaking in regard to alfalfa as compared with white clover.

Prof. Hunter—We have not much white clover where the alfalfa grows, so for the comparative results we shall have to depend largely upon the experience of the men who have dealt with both. The bee-keepers of western Kansas say it is equal—some go further and say it is better—but the conservative ones say it is equal to white clover in its honey. It would be very interesting to me to hear a little discussion among the members present upon that point.

Dr. Mason—I have often thought of what Mr. Root once had to say in Gleanings. Prof. Cook had made an analysis of Alsike clover, and found that it did not contain nearly the nutriment that other grasses do, and Mr. Root's idea was that he would give a great deal more for the opinion of of the horses and cows on its food value than for the opinion of science. It may, or it may not, be true that what the Professor has said will work out all right in practice. If I understand him rightly, his theory is that alfalfa does not yield honey in a country where it is simply irrigated, and where there is no moisture in the atmosphere.

Prof. Hunter—I am trying to give you comparative results, or a statement of the circumstances where it would give you the best results.

Mr. Rauchfuss—I lived in the old country, in Germany, in a very moist section, where it rains nearly three times a week, and I never knew that alfalfa was a honey-plant while I was there—I never saw a bee on it, nor regarded it in the light of a honey-plant. When I came to Colorado I was surprised to see what quantities of honey the bees will sometimes gather from alfalfa, and I have tried to find out under what conditions the bees will do the best on alfalfa. For this purpose I have had two hives on scales. I have noted down the temperature, the maximum and minimum temperature each day, and also the general conditions of the weather, and I have found that in most cases a day that is fairly calm, with little wind, and comfortably warm, from 80 to 100 deg.—would be the best for the bees to gather honey from alfalfa. And in regard to alfalfa that is irrigated and alfalfa that is not irrigated, the latter the bees will visit, but they do not seem to get much from it. This year we have had about 20 acres of alfalfa within 500 yards of our bees. It was not irrigated on account of having too much other work, and the bees went right over that patch and visited some that was irrigated three miles off. We have had our bees go as far as four miles away into alfalfa fields that are in good bloom. Occasionally, of course, they will visit alfalfa that is not irrigated, but they do not do very much good on it. In regard to the maximum yield—16 pounds a day—that is, for a single day in the best of the season, has been the most that we have ever had from one colony. Last year we had two colonies on scales, and one gained 101 pounds in 10 days. That was a fairly good yield. It was a good colony. The other colony that we had on the scales was not in nearly so good condition, but it discounted the other after all, for it stored 220 pounds of extracted honey in the season, while the one that made the 10 days' record produced only 180 pounds for the season. This last colony we have had on the scales for seven years, and during those seven years it has never had at any time in the season more than five frames of brood. It was in a 10-frame hive, and averaged about 200 pounds of honey a year. It was originally an Italian colony, but has been hybridized.

Dr. Miller—I would not give a blue button for the investigations of the scientist if they are not borne out by practical experience. But let us be very careful about underestimating the work of the scientist. We may find that there will be appearances of contradiction when there is no contradiction in fact. I very much doubt whether there is any real conflict here. The Professor tells us that the rain-cloud is worth more than the irrigating ditch, while on the other hand Mr. Rauchfuss tells us that the alfalfa that was irrigated was worth very much more than that which was not irrigated. There is not necessarily any contradiction here. The point is, the alfalfa in the one case was irrigated; did that in the other case have plenty of rainfall?

Mr. Rauchfuss—No, sir.

Prof. Hunter—Where there has been too much rainfall, you have another condition in which you get no yield. This year my work has been in 15 counties, but I would not like to have you understand that there is anything conclusive in the result of the experiments, because I do not consider that one season's work can be conclusive. We are beginning to work in earnest, and I am endeavoring to make every man who owns a colony of bees in the State of Kansas a co-operator in the work, whose testimony will be worth as much as mine.

Mr. Stilson—This goes along in the same lines upon which we have been experimenting in this State a little. To-morrow, when you are on the Exposition grounds, we will show you some results along these same lines of which the Professor speaks. You can get some profit by discussing the question out there.

Dr. Miller—Why is it that in Germany the alfalfa yields no honey, while it yields honey out here, and within 10 miles of my place in Illinois it doesn't yield a drop?

Mr. Westcott—I have eight acres of alfalfa at my place that grew a length of nine feet this year. I let that alfalfa stand until it was in blossom, and in fact it was too ripe before I cut it. I never saw bees on it but one time, and then only a few. I visited it quite often. In the middle of the summer, before I cut it, I tried it again, but when I lookt at it then there were no more bees upon it than there were in the spring. It is in blossom to-day, but I have received no honey from that alfalfa yet.

The convention then adjourned to hold an informal session on the grounds of the Trans-Mississippi and International Exposition, the next forenoon, at 9:30.

The following are the papers by Dr. Brown and Wm. McEvoy, previously referred to; the first is by Dr. Brown:

Needs of Bee-Culture in the South.

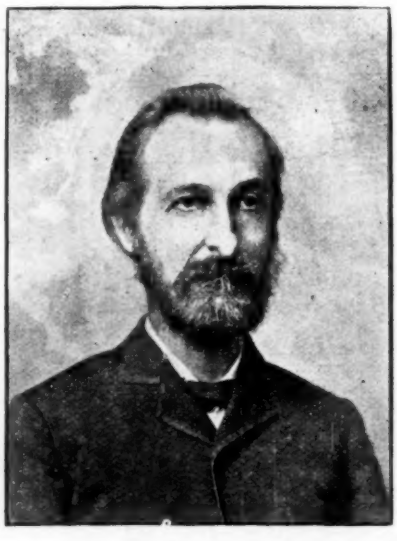
This subject embraces so much and presents so many topics for discussion that I am at a loss to know what to select for this short paper. You will find the needs in the South of the same character as the needs that are required for the successful and profitable culture of the honey-bee in all other sections of our country.

The first great need is an abundance of honey-producing flora; second, bees to gather it; third, sufficient knowledge on the part of the bee-keeper to enable him to know *when* and *how* to manipulate the bees in order to secure the most profit from their industry; and fourth, a market for the sale of the product when gathered. I think these are the great needs for profitable apiculture in any country.

In the South we have a greater variety of melliferous plants than there is in the North. The honey season is more extended, while the flow seldom comes in, as it were, in a rush. From the middle of June until the first of September bees seldom gather more than a support, except possibly along the coast of Florida, where the black mangrove grows. There is need of a forage plant capable of standing drouth and heat, and at the same time secreting honey, to come in and fill up this void between the close of the spring harvest and the fall honey-flow, which comes about the first

of September. For nearly 30 years I have been trying and experimenting, to find such a plant, but thus far I have failed to do so, and do not believe any such plant can be found.

The South needs to have more attention paid to the preservation of her native forest honey-producing trees; for instance, the poplar, which is one of the best. More attention should be paid to the culture and propagation of honey-producing plants, particularly to those having other uses than the mere secretion of honey. Crimson, Alsike and white clover do well on most soils, but best on alluvial soil. The two latter clovers did well and secreted nectar abundantly



Dr. J. P. H. Brown.

in the latitude of Augusta, Ga., the past season. We need more attention paid to fruit-culture, for with it we get more sweets. We need to build up and preserve the honey-flora.

Knowledge of what to do, when to do, and how to do, is greatly needed. The person who invests money in bee-fixtures, and not in books of instruction, has just thrown his money away, for bee-keeping will only be a delusion to him. "Knowledge is power," and the mass of Southern bee-keepers need it.

With most honey-producers a better market is needed. Many look off to some big market, accompanied with big railroad freight and commissions, and lose sight of developing and building up the home market. By a liberal scattering of tracts explaining the properties and uses of honey, and offering it in small packages neatly and cleanly put up, a trade can be establisht in places where now only a few pounds are sold.

While the Lord helps all, the Southern bee-keepers need to put their shoulders to the wheel and work out their own salvation by pluck, knowledge and untiring energy.

J. P. H. Brown.

The following is the paper written by Mr. Wm. McEvoy, Foul Brood Inspector for the Province of Ontario, Canada:

Foul Brood—Its Cause and Cure.

Foul brood will be almost a thing of the past when every bee-keeper keeps dead brood out of every colony of bees. The very filthy habit that so many have fallen into, of putting comb with dead brood in, into colonies for the bees to clean out, is a bad one, and one of the very best ways of spreading foul brood. Many a bee-keeper finding two or three of his colonies dead, and not knowing that they died of foul brood, has divided the combs among his best colonies, to get the bees to clean out the decayed brood he found in them, and instead of getting the combs cleaned out, spread the disease through his apiary at a rapid rate. I have always claimed, and do yet, that where brood-rearing is continued for a length of time in weak colonies, among a quantity of decaying brood, that it will sooner or later end in foul brood. If we want our colonies to keep in a healthy condition, and do well, we must keep dead brood out of them.

The young bee destroyed by foul brood first turns yellow; as it decays further it becomes a brown, ropy matter, and many of the capt cells (in bad cases) will be sunken a little in the capping, with a small hole in some of them. When the foul matter dries down it settles on the lower side and bottom of the cells, and sticks there like glue, and will remain there as long as the comb lasts. And when the bees are gathering honey they store it in the cells where the foul-broody matter dried down, just the same as they do in sound cells, and often seal them; then, as soon as the larvæ is fed any of the honey that has been stored in the diseased cells, it will die of foul brood; and when larvæ is fed in cells where foul matter dried down, it will also die of the disease.

No foul-broody colony in the world was ever cured, or ever can be cured, by the use of any drug. To cure an apiary of foul brood, every comb must be removed out of every diseased colony, and the bees thoroughly cleansed of the honey which they will take out of the old combs when they are being removed. In the honey season, when the bees are gathering honey freely, remove all the combs out of the diseased colonies *in the evening*, and shake the bees back into their own hives; then give them frames with foundation starters, and let them build comb for four days. The bees will make the starters into combs during the four days, and store the diseased honey in them which they took with them from the old combs.

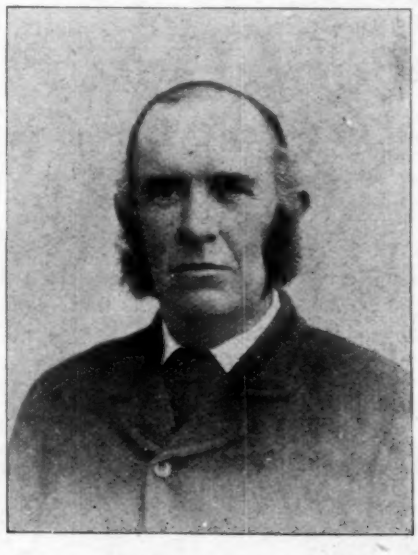
Then in the evening of the fourth day remove the new combs and give the bees full sheets of foundation to work out, and then the cure will be complete.

By this method of treatment all diseased honey is removed from the bees before the full sheets are workt out.

All the old, foul-broody combs, and those made out of the starters during the four days, must be made into wax or burned.

The curing can be continued after the honey season closes, and the bees be cleansed of the diseased honey by feeding them sugar syrup *in the evenings* during the four days they are on the comb foundation starters, and when the little combs are removed, the fourth evening, and the full sheets of foundation given, the bees should be fed plenty of stores to winter them. Where the colonies are weak in bees, put two, three or more of them in one, so as to make good, strong colonies to start the curing with, and end the season with good, strong colonies, which are the only profitable ones to keep.

In all the thousands of diseased colonies that I have



Wm. McEvoy.

gotten cured of foul brood, I never had one empty hive boiled, scalded or disinfected in any way; and I know for a fact that the empty hives cannot give any colony the disease.

Wm. McEvoy.

QUESTIONS AND ANSWERS

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Introducing Queens.

Critic Taylor, in the Bee-Keepers' Review, calls attention to the fact (for which I thank him) that on page 727 (1898), in telling a sure way to introduce a queen, I did not mention that the queen should be put in. Come to think of it, it would be a good plan to put her in, but by no means at the time he suggests—"not till a handful of bees appear." There would be nothing to gain and a good deal to lose by waiting so long. Put her in just as soon as you put in the frames of brood. C. C. MILLER.

The Granulation of Honey.

There is a woman who sells strained honey here, and says it is pure, and of her own extracting, yet it candies quickly. Also a merchant here who has a lot of honey in pails labeled as *pure*, yet it is as solid as so much soft maple sugar. The directions say, "Put the pail in warm water and it will dissolve;" also that "*all* honeys will candy." Now is this true? Is it old or new honey? Or will new honey candy? NEW YORK.

ANSWER.—The exceptions are so few that it may be said that all pure honey granulates sooner or later, there being no exceptions that I ever knew in Northern honey. If you see a package of honey that has stood through the winter without granulating, you may be almost sure there's glucose in it. Cold weather hastens granulation, yet extracted honey generally granulates before freezing weather and sometimes before it is taken from the hive. If you get any extracted honey at this time of the year, you may feel pretty sure it will granulate soon after you get it, if not already granulated.

Queens Piping—Board Cover Over Bees in Winter—Prevention of Swarming.

1. Will you please describe, as nearly as you can, the sound of a queen piping? I do not know a thing about it, and I would like to know what it is like so I will be sure of what I am doing when the time comes.

2. On page 694 (1898), in the answer to the fourth question, from Michigan, I understand that you have used for some time a board cover instead of a quilt over the bees. Do you mean this for double-walled hives on the summer stands, with packing on top of the board cover? If so, how can the moisture go up through the board, as much of it ought to?

3. If I have the queen's wing clipt when she swarms, if I kill her and put her on the alighting-board, and the bees go in again, and when I hear the young queen piping, if I cut out all queen-cells will it be a sure plan to keep them from swarming? BALDWIN.

ANSWERS.—1. That's a very hard thing to do. Sit down and try to write a description of the crowing of a rooster so that one who has never heard it will know exactly what it sounds like. But altho it's so hard for me to tell you what the piping of a queen sounds like, it isn't so hard for you to tell it when you hear it. The sound a queen makes when piping is a good deal like the repetition of the word "peep" or "teet." It's a rather shrill sound, uttered several times in succession, the first time long drawn out, then shorter and shorter, then the queen will be silent for a time considerably longer than she occupied in piping, when the piping will be repeated, perhaps in a different part of the hive, for when a queen is piping she generally is on the move pretty lively, only when she is piping she remains perfectly still. If a strong colony has sent forth a prime swarm, and nothing has been done to prevent the issue of a second swarm, you may hear piping a week after or later. Go to the hive in the evening after the bees have stopt flying and all is still. Put your ear against the side of the hive and listen patiently. Perhaps within two minutes you will hear, "p-e-e-e-p, p-e-e-p, pe-ep, peep, peep," and immediately after it you are likely to hear one or more of the young queens that are yet in their cells replying in a coarser tone, "quawk, quawk, quawk," the quawking queens seeming to be more in a hurry than the one that pipes. I don't believe you'll have much trouble to tell it when you hear it.

2. I use single-walled hives and winter them in the cellar.

3. Yes, if you cut out all queen-cells; but if you miss a single one it will not work. Neither is there any use of putting the dead queen on the alighting-board. The bees will usually come back without that, altho sometimes they may go into some other hive whether the queen is dead or alive. If you kill the queen, or take her away, do it when the prime swarm issues. If you leave her till the young queen pipes, the bees may annoy by swarming out several times before the young queen issues from her cell. By the time the young queen pipes, the old queen is likely to be put out of the way without any attention from you.

Staple-Spaced Frames—Chaff Hives—Pure Italian Bees vs. Hybrids—T Supers vs. Pattern-Slats.

1. Do you consider staple-spaced frames all right to handle? In this locality regular Hoffmans are very badly stuck together.

2. Would you advise me to use chaff hives where there is no cellar to winter in?

3. Would it be best to buy pure-bred Italian queens, or breed from good hybrids? Each of two colonies of hybrids gave me over 50 pounds of nice comb honey from the fall flow of heart's-ease.

4. I am well pleased with T tins over pattern-slats. The bees enter more quickly, work better, and seal the outside sections almost as soon as the centers. I have destroyed all old pattern-slat supers. ILLINOIS.

ANSWERS.—1. You will very likely like the staple-spaced frames much better than the Hoffmans, and perhaps you might like the right kind of wire nails still better than staples.

2. In your locality (central Illinois) it is doubtful whether it is advisable to use chaff hives. If you winter outdoors you can use single-walled hives with some protection.

3. Better breed from the pure stock. Suppose you reared a number of queens last summer from a pure Italian queen, and you found that these young queens had all met black drones, and that every colony of these hybrid bees stored 50 pounds of heart's-ease, while the pure stock did not do so well; it might seem to you that because the hybrids did the better work it would be better to breed from them. But if you did so you would probably find that the next generation of hybrids would fall behind the pure Italians. You'll probably get all the hybrids you want when trying to breed pure Italians, and you'll find those hybrids better than those that are reared from hybrids.

4. I am with you in preferring the T supers, but are you not giving them just a little too much credit? It hardly seems to me that there would be a very noticeable difference as to bees entering supers, and I can't see any reason why they should finish the outside sections in the T supers better than in the others.

Taking Bees from Between House-Partitions.

My friend in Long Island has a colony of bees that has made its home in the side of her house, between partitions, for several years. Once she took off the boards and cut out a large quantity of honey. She has become greatly interested in bees and bee-culture, and would like to hive these bees, if possible, and wants to know when and how to do it. HOLLIS.

ANSWER.—Much depends on the "lay of the land," each case being a case by itself. However, having once cut out honey, it ought not to be a very hard matter to go just a step farther, cutting out the combs, and removing combs, bees, brood and all. Perhaps the best time to do this will be when fruit-trees are in bloom. Then put combs in frames after the manner described in your text-book as transferring. Some one who has had a little experience in handling bees ought to undertake the job, and he will know how to get the bees out of the way when transferring the combs.

GEORGE W. YORK, Editor.

AMERICAN BEE JOURNAL.

ESTABLISHT IN 1861 OLDEST BEE-PAPER IN AMERICA

DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY-PRODUCERS.

PUBLISHT WEEKLY BY

GEORGE W. YORK & COMPANY,

118 Michigan St., Chicago, Ill.

ONE DOLLAR A YEAR. SAMPLE COPY FREE.

[Entered at the Post-Office at Chicago as Second-Class Mail Matter.]

United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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GEN'L MANAGER AND TREASURER—Eugene Secor, Forest City, Iowa.

VOL. 39. JANUARY 5, 1899. NO. 1.

EDITORIAL COMMENTS

NOTE—The American Bee Journal adopts the Orthography of the following Rule, recommended by the joint action of the American Philological Association and the Philological Society of England:—Change "d" or "ed" final to "t" when so pronounced, except when the "e" affects a preceding sound.

1899 is the way it is written now. Fast is the 20th century approaching. Another year, and the American Bee Journal will be in the last year of its fourth decade and second score of years. Forty years is quite a ripe age for a paper to attain unto, and particularly a *bee*-paper. It is rare that a periodical is older than its editor. But the American Bee Journal is such a rarity. But its age doesn't seem to weaken it much—it is not infirm if it is old. Of course, sometimes appearances are deceptive; but hardly, we hope, in this instance.

Dangerous Drugs as Cures for Bee-Stings are earnestly inveighed against by Somnambulist in the Progressive Bee-Keeper. "Never, *never* resort to the use of toxic drugs" for so small a thing as a bee-sting. Whiskey is sometimes recommended for bee-stings, but that is not so dangerous as drugs, for its character is known, while the others silently but surely fasten upon the victim without his knowledge until it is too late.

Bee-Chat is the name of a British bee-paper that has been publisht quarterly, but now comes out as a monthly. It is edited and publisht by one of England's best-known practical bee-keepers, S. Simmins, the author of that practical work, "A Modern Bee-Farm." Long life to the chatty Bee-Chat.

Shipping Beeswax.—We have handled quite a large quantity of beeswax during the past four or five years, and we have often wondered why so many ship it in heavy boxes when sacks made of almost any material except paper are so much lighter and more easily handled. And then, there is no need of paying heavy freight or express charges on a clumsy box, weighing perhaps 10 pounds, and holding say 20 pounds of wax, when a sack not over a pound in weight would answer better in every way.

We once received several hundred pounds of beeswax from Utah, all in burlap sacks (the sacks weighing, we presume, about six pounds), when, had the shipment been put in heavy boxes, it would have weighed 50 to 100 pounds more. The freight charges on that lot of beeswax were about $3 a hundred pounds. It would have been rather expensive to ship boxes at that rate, when the sacks were better in every way. But many do not think of these apparently little things which go far toward making the difference between success and failure.

A Roll of Honor is talkt of by A. I. Root, composed of all who have taken Gleanings for 25 years, or since its first number, in 1873. That is a first-rate idea. We hope it will be a long roll. Suppose we, too, begin such a "roll," and compare it with Mr. Root's, just for fun, you know. Let us call for all who have taken the American Bee Journal for 25 years *or over*. Please mention the exact number of years, when writing us, and we will print a "Roll of Honor" sometime in February—next month. Just drop us a card any time during this month, and let us see how near our "roll" comes to being as large as Mr. Root's.

How to Read a Bee-Paper is described by Mr. Harry S. Howe, of New York, in the last Bee-Keepers' Review. The plan he now wisely follows in reading is this:

1. Re-read the articles that seem of especial value.
2. Discuss them with any bee-keeper who gets in range.
3. Test a few of the best ideas on a small scale at first.
4. Lastly, read all the advertising matter in each paper.

Mr. Howe, the past season, read four of the bee-papers publisht in the United States, and said that when any two chanced to come together, he was like the boy who sat down between two pies—it didn't make much difference where he began.

The Spaniard is soon to become enlightened in bee-keeping, along with many other excellent things he is learning about, these days. Gleanings reports that the book, "Langstroth on the Honey-Bee," has been ordered translated into the Spanish language, by the Minister of Agriculture, of Mexico.

New York State's Honey Crop in 1889, according to the census of that year, was 4,281,964 pounds. Probably last year it was nearly 6,000,000 pounds, which shows that New York is a great State in more ways than in area and population. Take it year after year, it is probably the best honey State in the Union.

Sending Comb Honey to Market.—Since we have been trying to do something in the line of wholesale honey dealing, we have been getting some experience. We used to have very little sympathy with the honey commission firms, thinking that almost invariably the honey-producer was the much-abused man. Lately we have been thinking that some of them deserve being abused, especially some of the comb-honey shippers.

The trouble is, that every bee-keeper seems to think that nobody ever produced so fine honey as his—no matter if the combs are twisted around three ways in each section, and are all travel-stained and bulged besides.

Then, again, some do not seem to know the difference between white comb honey and amber—unless the amber is

a coal-black honey-dew. We have had a grocer reject a whole case, and refuse to buy at all, just because he happened to pull out a section of honey that was a trifle off color, when all the rest of the case was fine. That bee-keeper should learn not to mix his grades of honey, but keep them in separate cases, and mark them accordingly.

But what a pleasure it is to get in a lot of honey from a bee-keeper who *knows how* to assort and put up his comb honey for market. We have had at least two such lots this winter—one from Iowa and the other from Wisconsin. If we continue to sell honey to Chicago grocers, year after year, we will likely select the bee-keepers whose honey we desire to purchase.

We may say further, that we think less than ever of the commission method of handling honey. The buying-and-selling-outright method is the proper one, if the bee-keeper sends exactly the grade of honey he agrees to. If he misrepresents, he should have his honey shipt back to him, and be compelled to pay the freight charges both ways.

Low Prices for Honey, according to M. W. Shepherd in the American Bee-Keeper, are due to the fact that the laboring classes, the chief consumers of honey, get such low prices for labor that they cannot afford to buy honey. The remedy is to reduce the price of honey to compete with the cheaper sweets, and have supply dealers lower their prices. The editor says every one is at liberty to make his own supplies, and if any one thinks supply dealers make too heavy charges let him emphatically and forever disabuse his mind of that error by making his own supplies for one season. He concludes, "If the existence of our industry can be sustained only through a reduction in the price of supplies of the present standard of excellence, its days are numbered."

Bees n Switzerland.—In an exchange we learn that Consul General DuBois says bee-culture has increast in Switzerland during the past 20 years 100 percent; that there are now 275,000 colonies in that country. The canton of Lucerne has 187 colonies to every 1,000 of the population, which is the highest average in Switzerland. This means a colony of bees for every family, or for every five or six persons in the canton of Lucerne. With its invigorating mountain air and delicious honey everywhere, Switzerland ought to be a healthy country.

MR. A. I. ROOT was 59 years old Dec. 9, 1898. May yet many happy, prosperous years be his.

* * *

THE NATIONAL FANCIERS' ASSOCIATION and Illinois State Poultry Association will hold their annual Poultry Show from Jan. 9 to 14, 1898, in Chicago. It promises to be a grand affair—and a great "cackling week" for this city. Everybody interested in poultry ought to attend this show.

* * *

MR. J. E. CRANE—a famous Vermont comb honey producer—visited the A. I. Root Company last month. He has about 500 colonies of bees, and produces as fine honey as we ever saw. We had the pleasure of examining about a carload of his honey, and it was simply superb. But what surprises us is that he doesn't read the American Bee Journal. At least we can't find his name on our list. Just think what honey he might produce if he should take the Bee Journal!

MR. DOOLITTLE AND DR. MILLER are both referred to editorially in Gleanings for Dec. 15. The editor of that paper has visited these two leaders in American apiculture, and says that one (Doolittle) uses a meat-block on which to place his typewriting machine when using it, and the other (Dr. Miller) an ordinary high stool. Editor Root seems to have expected mahogany desks and upholstered chairs. Oh, no; busy, hard-working men like Doolittle and Miller have no use for "soft," showy and expensive luxuries. Only big bee-supply manufacturers can have such! Of course, all apiarian editors might enjoy them if they could afford to have them, but we know of only two, perhaps, that either possess such elegant things, or might if they wisht. They are Root and Leahy. And we are not a bit jealous. We like to see other people enjoy themselves when they can afford it.

* * *

EDITOR HUTCHINSON, in the December number of his paper, says, "Success comes only with hard study, courage, thoroughness, and genuine enthusiasm." He ought to know, for we believe he possesses all of these characteristics, and, from his own words, has arrived at the coveted goal. It means a good deal to succeed now-a-days, especially when handicapt as some have been that we might name. But the race in life is not always to the swift or dashing; it is more often won by the patient plodder. We feel that it will not be ours to know whether we have won success—or successfully won; at least not for awhile yet. In the meantime we are content to plod on, ever striving simply to make a good, full-measure bee-paper.

* * *

HON. EUGENE SECOR, General Manager of the United States Bee-Keepers' Union, has been sick, hence the delay in mailing his annual report and voting-blanks. On account of his sickness, he has wisely taken the responsibility of changing the date of closing the polls from Jan. 1 to Jan. 15. We are glad to know that our General Manager is recovering from his illness, and trust he is quite himself again now.

* * *

MR. W. B. BLUME, of Cook Co., Ill., called a few days ago, and handed us $1.00 for the Langstroth Monument Fund when renewing his subscription for 1899. Good way to do. Let others do likewise. Mr. Blume had his best crop the past season—3,300 pounds of comb honey from 80 colonies, spring count, and closing the season with 97 colonies, which he is now wintering.

* * *

MR. J. F. MCINTYRE, of Ventura Co., Calif., wrote us as follows:

"California bee-keepers are a 'blue' set just now. They have just past through the dryest year since 1877, and are now threatened with another, and bees are not in condition to stand another dry year. Guess we will have to migrate if it doesn't rain this winter. How is Cuba?"

* * *

F. B. MILLS, of Rose Hill, N. Y., has one of the most beautiful 68-page catalogs we have seen. You will find Mr. Mills' advertisement in the Bee Journal during this month. Be sure to send to him for his catalog, and say you saw his name and address in the American Bee Journal. Then afterward buy some seeds of him.

* * *

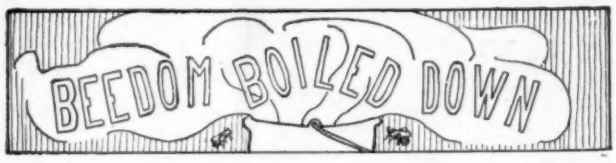
THE CYPHERS INCUBATOR CO., of Wayland, N. Y., have a wonderfully fine catalog and guide to poultry-culture that they mail for 10 cents. Our readers will make no mistake if they send 10 cents for that catalog, and at the same time mention having seen the Cyphers Company's advertisement in the Bee Journal.

* * *

MR. E. E. HASTY, of Lucas Co., O., we learn, has terminated his long series of "A Condenst View of Current Bee-Writings" for the Bee-Keepers' Review. Mr. Hasty did fine work in that department. We presume the new "Department of Criticism" takes the place of the former by Mr. Hasty.

* * *

MR. E. J. CRONKLETON, of Harrison Co., Iowa, wrote us Nov. 11: "I have taken the American Bee Journal since October, 1884, and by its help and my own ability I have sold thousands of dollars worth of honey at a nice profit. No one should think of keeping bees without it."



Bad Year! the worst for 50 years! Most French bee-keepers haven't enough honey to winter their bees, says Le Rucher Belge.

An Australian Honey-Yield.—W. J. reports in Australian Bee-Bulletin that from 80 colonies he got 11 tons of honey and increast to 115; 1275 pounds per colony and 43 per-cent increase is not so bad.

Utah Yield.—E. S. Lovesy reports in Gleanings the highest he has heard of in Utah the past season, as nearly 5½ tons of honey from 31 colonies, increast to 82. That average—350 pounds per colony—in an off year is not bad.

To Seal Bottles.—Take four parts rosin, four parts pitch, and one part beeswax. Melt the wax, add the resins, and when the whole is liquid, dip the bottle in to the neck, take out and turn it around, holding the bottle horizontally, so all parts will be equally covered.—Revue Eclectique.

To Keep Honey Light in Wax-Extractor.—D. W. Heise (Canadian Bee Journal) is delighted at having learned that when cappings are put in the wax-extractor he can prevent the accompanying honey from becoming dark by never allowing the sun to strike the vessel containing the honey, and removing it just as soon as it has run down.

Plain Sections, says M. L. Main in American Bee-Keeper, are filled and completed more uniformly than others, and the honey in the outside rows will be more securely attacht to the wood, hence a larger number will grade fancy. A picture of eight sections from his apiary shows the combs not so very well finisht out to the wood.

Built-Out Combs vs. Foundation.—Allen Sharp, in British Bee Journal, says that in his experience he finds that bees prefer fresh foundation in sections to unfinisht combs of the previous season, or those that have been a long time on the hive. Some in this country agree with him, while others take the reverse view, saying that bees object to partly-built combs only when they are in bad condition.

Best Ventilation for Hives in Hot Climates, says W. W. Somerford in Gleanings, is that secured by raising the cover ½ inch at one end, the flat cover being best. "If ventilated thus, hives with flat covers (even tho covers are made of stuff only ½ inch thick) will be perfectly safe to sit in any tropical sun, even when combs are full of honey in the top story." Of course such ventilation would not work well for comb honey.

Right Strain of Bees for Comb Honey, says J. B. Hall in the Canadian Bee Journal, must be great gatherers, not afraid to leave the brood-nest to store, filling the combs to the top-bar with brood, building combs without the use of brace-combs, filling the sections to the wood all around, and not afraid to cap it when full. Such bees can be kept, and are kept, but "it requires constant culling to keep out undesirable stock."

Saltpeter Rags for Smoker Fuel.—I take a two-gallon crock (of course larger or smaller would do), and throw into it a pound of saltpeter, then fill half full with water. Into this I put pieces of rotten wood or cotton rags. The wood must be allowed to soak for a day or so, but the rags may be taken out at once, or they may be left a month. If you use rotten wood for fuel, and wish to tell the saltpeter wood easily from the other, it's a good plan to throw a little red aniline dye into the crock. An old milk-pan with holes in the bottom, or an old colander, stands in the crock, and some of the rags are put into that to drain and dry. Next time I come for saltpeter rags I take them out of the colander, put some out of the crock into the colander, and put some new ones into the crock. If none are dry enough I dry them in the sun or stove-oven. When I want to fire my smoker I take a rag, perhaps a piece of an old shirt or dress, the size of my hand (I don't mean the dress but the rag is the size of my hand), touch a lighted match to it, roll it into a little ball, and drop it into the smoker. Then, without waiting to see whether it will burn or not, I fill up the smoker with chips, planer-shavings, or what-not, with no fear but there will be a good fire with very little puffing.—Dr. C. C. Miller, in Gleanings.

Are Drones from a Drone-Layer Virile?—Australian Yankee, in Australian Bee-Bulletin, thinks he has proved that they are. He had blacks, and there were no Italians within 20 miles. He got some Italian brood and reared late in the fall a queen that never produced a worker, but thousands of drones, worker-brood from other colonies being constantly added. Many of his young black queens produced progeny with yellow bands, showing that they had mated with the yellow drones from the drone-layer.

Uniting Colonies.—J. O. Grimsley, who conducts the "Department of Bees and Honey" in the Ruralist, is charmed with Doolittle's plan of uniting colonies. He varied from it by not caging the queen, and thinks it not necessary to cage her. To unite, he had two colonies with four combs each, 8-frame hives. He took queen from hive A, then put in A the combs, bees and all, from B, alternating the frames. No hive being left on the stand of B, the returning bees heard the call and joined the united colony, or else made their home wtih some near-by colony.

Which Way Should Combs in the Hive Run?—G. M. Doolittle discusses the matter in Gleanings. In a state of nature bees build their combs in all directions. In this country most bee-keepers have the frames in the hive with one end toward the entrance. This allows the hive to be tipt forward so water can run out of the entrance. If frames hung crosswise, the combs would not hang true in the frames. There is better chance for ventilation in hot weather if frames run toward the entrance. Bees returning from the field can more readily get to any part of the brood-chamber.

Cleaning Hives Annually.—F. L. Thompson says in the Progressive Bee-Keeper that for some years he has been inclined to think it time fooled away, laboriously to scrape all hives every spring; but he has swung completely around in his views since coming in charge of an apiary that had been run on the let-alone plan. It was such a terrible job to get all in good working order, that he will hereafter scrape clean each spring every hive. That gives chance for clipping queens and thoroughly inspecting everything at one opening early in the season; then in the swarming season he doesn't dread to open a hive on account of bur-combs, frames glued down, etc., but everything works easily and smoothly.

Doolittle's Box-Plan of Uniting a number of weak colonies is given in the American Bee-Keeper. For two or three small colonies make a box that will hold 12 quarts; for larger colonies, one that will hold at least 20 quarts. One side must be of wire-cloth nailed on. The other side should consist of wire-cloth nailed to a light frame, so it can be easily removed. A funnel is put in a hole in the top of the box. Blow a little smoke into the first hive, and pound on the top with the fist, then treat in like manner the others in succession. In five minutes from pounding the first hive, the bees will be filled with honey. Shake the bees into the funnel, caging the queen when found. A cloth in the funnel when not in use keeps the bees in. Bump the box down so as to shake the bees on the bottom, remove the funnel and cover the hole. Mix the bees thoroughly by shaking and tumbling the box. Bump it down again and drop into the hole a caged queen, having the cage suspended by a wire hookt over the top of the outside of box. Have candy enough in the cage so bees will liberate the queen in four to six hours. Put box in cellar or other cool, dark place. Next morning—if the bees were put in box in the evening, or in the evening if the bees were put in the box in the morning—take off the movable side and empty the bees like a swarm in front of their destined hive.

In the multitude of counsellors there is safety.—Prov. 11-14.

Best Size of Hive for Beginners.

Query 87.—In the light of your own experience, what hive, or size of hive, do you consider best for a beginner to start with—1st, for comb honey production; 2nd, for extracted honey?—OHIO.

Dr. A. B. Mason—A 10-frame Langstroth.

E. France—1 and 2. The Langstroth hive for both.

R. L. Taylor—1. The 8-frame Langstroth hive. 2. Ditto.

Prof. A. J. Cook—1 and 2. Langstroth for either or both.

Emerson T. Abbott—1 and 2. An 8-frame "St. Joe," of course.

W. G. Larrabee—1 and 2. 10-frame Langstroth in both instances.

Dr. J. P. H. Brown—A 9 or 10 frame hive, with a frame the size of the Langstroth.

P. H. Elwood—1. Not over 2,000 cubic inches. 2 For extracting, one quite a little larger can be used.

G. M. Doolittle—1 and 2. The Langstroth frame is as good as any, and for a beginner 10 frames to the hive will be no mistake.

Jas. A. Stone—1 and 2. I have no other than the 10-frame "Improved Langstroth-Simplicity," because I like it best for all purposes.

Eugene Secor—1 and 2. Localities may differ. For my locality and method of wintering, an 8-frame Langstroth seems to be as good as any.

Chas. Dadant & Son—1 and 2. We use larger hives than common, but if you take a standard, don't use anything smaller than a 10-frame Langstroth.

D. W. Heise—1 and 2. A Dadant-Quinby, if you should remain a beginner only. Apart from that, you must study your locality and be governed accordingly as to size.

J. E. Pond—1 and 2. Twenty-five years' experience causes me to advise the regular Simplicity 10-frame hive. I don't think a better one exists, and fully believe that others by its use will think as I do.

Mrs. L. Harrison—1 and 2. As far as as my experience goes, a Langstroth hive for both. Localities may differ. I've had the best results with an 8-frame Langstroth, which can be used two-story for extracted honey.

C. H. Dibbern—1 and 2. One naturally loves his own child the best, and I think there is no hive equal for either comb or extracted honey to the "Dibbern." However, I believe a beginner will succeed as well with the Langstroth as any other.

R. C. Aikin—1 and 2. As circumstances may cause a change from one to the other, or a mixt production, your hive must suit either. I want a shallow frame, and to use from one to any number of sets as needed for results,

and always with a honey-board, and surely queen-excluding when extracting. Start with what you expect to continue with. Think hard and long, and get advice of skilled apiarists before starting.

Dr. C. C. Miller—1 and 2. That depends. If you intend to give the bees little attention, perhaps the Dadant or Quinby hive. If you intend to give all the intelligent care possible, the 8-frame Langstroth or dovetail, using as many stories as needed.

J. A. Green—1 and 2. Standard goods are best for a beginner, as a general rule. A hive holding 8 Langstroth frames would be about right for comb honey. For extracted I would prefer 10. The larger hive would be a better all-purpose hive for a beginner.

S. T. Pettit—1 and 2. 15½ inches from front to rear, 17⅛ from side to side, inside measure; and 9¼ inches deep, with 12 frames. The advantages are: Long entrances; more ventilation; wide hive, more super room; the section supers project front and rear.

J. M. Hambaugh—1. Much depends. For comb honey, 10-frame Langstroth for brood-chamber, Miller supers for surplus. 2. For extracting, the body above to be the same as the brood-chamber, here in California. I prefer the Dadant hive where wintering is a problem.

O. O. Poppleton—1. Let comb-honey producers answer this. 2. I can do better with a long single-story hive, with deep frames. For some reasons a more standard double-story hive would be best; but I couldn't conscientiously advise something I have myself discarded.

Rev. M. Mahin—1 and 2. The main thing in a hive is ease and facility of manipulation. As to size, something depends—much, in fact—upon the honey-resources of the locality, and no universal rule can be given. I would make no difference between a hive for comb honey and one for extracted.

E. S. Lovesy—1. I prefer the 10-frame Langstroth, 28 sections to the super, with double section-holders, which virtually protects the sections. 2. The 10-frame short Langstroth we run three stories. It is easy to manipulate, and not so liable to break the combs in extracting.

G. W. Demaree—I would have but one kind of hive (brood-chamber) for producing comb and honey in the extracted form. In the Southern and Middle States the standard Langstroth—10-frame—is as good as the best I have tried. Further north, perhaps, the 8-frame Langstroth suits a shorter season.

GENERAL ITEMS

Plain Section and Fence Endorst.

This year we had our first experience with plain sections and fence separators, and were very much pleased with the result. With the open sections it usually occurs that the inside sections of the super were filled first, but with the plain it was not so with us this year. In some cases the outer sections were the only ones in the

case that were filled, and the outside just as well finisht as the inside. We had a separator outside of the last row of sections—before we put in the spacing board—and thought that was why they filled so well to the outside. Even tho some of the cases had but few sections of honey in them, they were filled out to the wood better than we ever had the open sections filled.

And as to the trouble with the plain sections shipping well, there is no question but that they are far ahead of the others, for the reason that the honey is so firmly united to the wood that it would be a hard matter to break it; and the face of the honey, we have seen no instance in which it protruded even with the wood.

Another thing, they are so easily cleaned.

JAS. A. STONE & SON.

Sangamon Co., Ill., Dec. 8.

Bees Did Nicely.

My bees did nicely during last summer. I have 18 colonies now, and they went into winter quarters with plenty of stores, so if none of them die during the long winter, through some unforseen cause, I will have a splendid start next spring.

I am very fond of the American Bee Journal, which comes regularly every week during the year. My wife also likes it very much. ARNOLD GERLACH.

Shawano Co., Wis., Dec. 12.

A Poor Season.

The past season was poor here; I got 300 pounds of surplus honey from 23 colonies. A man 30 miles west got 1,500 pounds from 80 colonies; another near me got three pounds from 50 colonies. C. E. MORRIS.

Carroll Co., Iowa, Dec. 12.

Bees Did Well.

I think my bees did well. I started last spring with 16 colonies, and now have 51, and got 800 pounds of section honey. The bees are all on the summer stands, well packt in chaff hives, with plenty of honey.

ROY H. MOORED.

Osceola Co., Mich., Dec. 7.

Not a Good Season.

The past season was not a very good one for honey in this locality, but my bees are in good condition for winter.

JOHN S. DOWDY.

Logan Co., Ill., Dec. 9.

A Three-Year-Old's Report.

The American Bee Journal is indispensable to me. It has proven a sure guide, with what little common-sense I could mix in with it. It is my only text-book; when I want to know anything concerning my bees, I take the last year's numbers, turn to the index, and soon find what I want to know.

I started in three years ago, a green-horn, with two colonies. The first year I got 50 pounds of comb honey from one colony; lost one queen in swarming, by two swarms settling together, consequently I did not get any honey from the queenless one. I increast to four colonies.

The next year (1897) was a total failure, and everybody had to feed for winter stores.

Last spring I started with 6 good swarms, got 300 pounds of comb honey in one-pound boxes, and 300 pounds of fine extracted, besides increasing to 15 good colonies, after doubling up for winter.

My bees are all pure Italian. I requeened all my own, and sold a few queens. My queens are all purely mated. From one colony I took 100 pounds of well-filled comb honey, and from another 150 pounds of fine extracted honey. The hives were so full of honey when preparing for winter, that I took out from one to two full frames, and will save them for spring use.

It was so dry the latter part of the past season that I did not have any fall flow.

I sold my honey from house to house at

15 cents a pound, for both extracted and comb. I have sold to quite a number that kept bees, but did not get a pound from them.

I had quite a little experience, for me, with one colony. It became hopelessly queenless about May 1; it was in an 8-frame hive, and very heavy. They commenced coming out of the hive until the ground would be almost covered, would run around, double up as if they had the colic, and die. I thought some disease had gotten hold of them. This was for a number of days. I then transferred them into a 10-frame hive, and it stopt entirely—no more dead bees. I concluded that being queenless they were killing one another off, because they were too thick. I had sent to Georgia for a couple of queens, and was waiting for them to arrive.

I bought an Italian queen a year ago in the fall; they did not seem to increase much through the summer. This fall, when preparing for winter, I found the queen, being clipt. There were only a few bees, and a large swarm of drones. This was about Nov. 1. I killed the queen, and gave them a queen-cell from a nucleus that I had sold the queen from a few days before, then doubled up the nucleus with them; they reared a nice queen. I don't know if she mated or not. They had two or three good flights with a peck of drones, or less.

W. H. BROOKS.

Snohomish Co., Wash., Dec. 5.

Bees Dying from Grape-Juice.

I do not know whether I will have any bees or not next spring. They are dying off very fast now. There was a good crop of grapes here, and the bees got a great deal of juice out of them; the "honey" they stored from the grape-juice is killing them. I am glad to see the Bee Journal is trying to help improve the English spelling, for the English language and the American liberty will spread from pole to pole.

JOHN CRAIG.

Macoupin Co., Ill., Dec. 12.

Fine Surplus of Golden-Rod Honey.

The American Bee Journal came to us on "probation" this season, but has proven so good that it has to enter now as a "full member."

Bees winter successfully on the summer stands with but little protection in this locality. They went into winter quarters this fall with a good supply of stores—mostly from golden-rod—of which they gave a fine surplus. Bees had a good flight Dec. 4, but the hives are now almost hidden with snow.

W. L. MCGHEE.

Jackson Co., Ohio, Dec. 6.

Bees in the Great American Desert.

In the spring of 1897, I had 7 colonies, increast to 16, and got 1,220 pounds of honey, about half extracted and half comb.

In the past season I increast these to 30 colonies. The spring being cold and wet we lost fruit-bloom, locust, and box-elder. The first flow we got was from alfalfa. I secured 1,415 pounds.

I winter my bees on the summer stands, packt in straw or wrapt with burlap or carpet, with chaff cushion. My bees are strong and healthy. I feed light colonies early in the fall, and stimulate by feeding in March and April.

I don't have to ask many questions, as I can refer to my file of Bee Journals, or to "A B C of Bee-Culture," and find just what I desire to know. If the beginners would take Dr. Miller's advice, and get a good text book, they could find what they desire to know in five minutes; whereas, they must wait a week or two before they can find out through the Bee Journal.

My neighbors' bees are troubled with foul brood. I have armed myself with Dr. Howard's treatise on the subject, so I may be ready when the pest makes its appearance in my apiary.

I am well satisfied with the bee-business,

and attribute my success to the American Bee Journal. It arrives every Friday. I take the rocker in the warm corner, and Mrs. H. smiles and says, "Your testament is weekly."

I have been interested in the discussion in regard to a pure food law, by the members of the Union. I am not a member of that honorable body, but I hope to be in 1899. This great State of Kansas needs a law of that kind. Adulterated food is sold in our city every day, and merchants tell me that the honey they have for sale is adulterated, but it goes off very slowly until my stock of honey is exhausted. I think that Kansas can do something this winter. I have talkt with our representative, who is a merchant here, and he will gladly do anything in his power in the House this winter, to get a pure food law in Kansas.

If General Manager Secor, of the Union, will send a copy of the Bill required, or to be adopted, to some good, live bee-keeper, or to some representative who will look after it, and if every bee-keeper in Kansas goes to work—sees or writes to their representatives and senators—I believe that this will be one among the States honored with a pure food law in 1899. P. R. HOBBLE.

Ford Co., Kans., Dec. 9.

Red Clover as a Honey-Plant.

My 26 colonies of bees, spring count, produced 913 pounds of extracted and about 125 pounds of comb honey in one-pound sections.

I don't take much stock in red clover as a honey-plant. My bees work more or less on it almost every year during hot and dry weather; but it does not produce as fine honey as white clover; when candied it is coarser grained, and has a water-soakt appearance. I wish my bees would let it alone, for we have plenty of white clover when the red is in bloom.

FRED BECHLY.

Poweshiek Co., Iowa, Dec. 11.

A Young Bee-Keeper's Report.

Last summer was the first time I ever handled bees, and had a poor year to start. I am 16 years old, and tend to my father's bees; he has about 105 colonies. I got only about 500 pounds of extracted honey and 200 of comb this year. I think the failure was on account of wet weather.

I have spent my Saturdays this autumn covering my hives with steel roofing. I had only three swarms last summer, and they were all late ones and stored no honey. I have about 25 empty hives which I hope to get filled with strong swarms next spring.

I am going to see Mr. Dadant some day; it is only about eight miles from where I live. I know I will enjoy myself.

My father is going to sow some alfalfa next spring, to try it.

EDMUND WORTHEN.

Hancock Co., Ill., Dec. 11.

A Wintering Arrangement.

I have been a reader of the valuable Bee Journal for three years, and have been studying the best way to winter bees. I have a way of my own, different from any I have read about. I will give a description of it:

I take a dovetail super and fit in a ⅜-inch board the size of the super; fit in the rabbets at each end, nail a ¼-inch strip across each end of the the board, so that when it is turned over it will form a bee-space between the frames and super.

I then cut a hole in the middle of the board the size of a quart fruit-can; have the can four inches high, and punch the bottom of this can full of small holes. Now make a box five inches square, and four inches high, and fasten around this hole. In winter I put the can in the hole and fill part full of cotton around the can, so as to receive all the steam; the cotton will hold the damp if there is any. I fill the super with oats chaff, as I am using the chaff hives, and put a glass over this box. I can feed early in spring. I take this box out and put a section of honey in it, flat down, and do not disturb the bees. I can see them any time. Then, if I choose, I pour feed on this section, and there is no danger of robber-bees.

My bees stored but little surplus this year. B. O. WILLIAMS.

Marshall Co., Iowa, Dec. 7.

Pamphlets We Are Out Of.

We find that there has been such a large call for our premium pamphlets lately, that we have run entirely out of the following, for which we have been substituting others of equal value, trusting that it would be satisfactory to those interested:

Muth's Practical Hints to Bee-Keepers.
Preparation of Honey for the Market.
Bee-Pasturage a Necessity.
Hive I Use, by Doolittle.
Silo and Silage.
Green's Four Books.
Rural Life.
Bee-Keeping for Beginners, by Dr. Brown.

Convention Notices.

California.—The California State Bee-Keepers' Association will hold its annual convention at the Chamber of Commerce, in Los Angeles, Jan. 11 and 12, 1898.

Sespe, Calif. J. F. MCINTYRE, SEC.

New York.—The New York State Association of Bee-Keepers' Societies will hold their annual meeting at the Kirkwood Hotel, Geneva, N. Y., Jan. 11, 1899. All interested are invited. Bee-keepers' societies are especially invited to send delegates. There will be an exhibit of microscopic preparations of foul brood (Bacillus alvei), and discussions relating to foul brood legislation. Mr. E. R. Root will give an address on the subject of foul brood.

Ithaca, N. Y. HARRY S. HOWE, Sec.

N. E. Ohio, W. N. Y., N. W. Pa.—The 18th annual convention of the N. E. Ohio, Western New York, and N. W. Pennsylvania Bee-Keepers' Association will be held in the City Hall, Cor. 13th and Buffalo Sts., Franklin, Pa., Jan. 11 and 12, 1899. The following is the larger part of the program:

President's Annual Address—Geo. Spitler, of Pennsylvania.

"Spring Management of Bees"—L. K. Edgett, of Pennsylvania.

"Summer Management of Bees"—R. D. Reynolds, of Pennsylvania.

"How can the Conditions of the Local Market be Improved?"—B. W. Peck, of Ohio.

"The best means of Increasing the Local Honey-Resources"—H. S. Sutton, of Pennsylvania.

"Profitable Use of Comb Foundation"—J. T. Nichols, of Pennsylvania.

"Making our Association More Useful"—Geo. Spitler, of Pennsylvania.

"Preparing Bees for Winter"—N. T. Phelps, of Ohio.

"Experiences of the Past"—D. A. Dewey, of Pennsylvania.

NOTICE—It is hoped that all will make an effort to be at this convention, and take an active part in the discussions. Special rates of $1.00 per day for those attending the convention have been secured at the United States Hotel, on Liberty Street.

GEO. SPITLER, Pres., Mosiertown, Pa.
ED JOLLEY, Sec., Franklin, Pa.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Dec. 19.—Market is about as last quoted. Best white comb brings 13c, with off grades of white at 11@12c; amber, 9@10c. Some lots have come on the market and are being offered at prices that would be reduced if buyers could be found. Extracted steady at 6@7c for white and 5@6c for amber. Beeswax, 27c. R. A. BURNETT & CO.

Detroit, Dec. 8.—No change in supply of honey as to quality, but prices are somewhat lower than last quotations, viz.: Fancy white, 13c; No. 1, 12@12½c; fancy dark and amber 9@11c. Extracted, white, 6@7c; dark, 5@5½c. Beeswax, 25@26c. M. H. HUNT.

Columbus, O., Dec. 15.—Honey arriving freely. There is quite an accumulation, and concessions in prices are necessary to move stock. Following prices are nominal: Fancy white, 12½c; No. 1, 11½c; No. 2, 10c; amber, 9c; dark, 8c.

COLUMBUS COM. AND STORAGE CO.

St. Louis, Sept. 9.—Fancy white comb, 12 to 12½c.; A No. 1 white, 10 to 11c; No. 1 white, 9 to 10c.; dark and partially filled from 5 to 8c. as to quality. Extracted in cases, No. 1 white, 6 to 6½c; No. 2, 5½c; amber, 5c; in barrels, No. 1 white, 5½c; amber, 4½ to 5c; dark, 4 to 4½c. Choice Beeswax, prime, 24c; choice, 24½c. At present there is a good demand for honey. WESTCOTT COM. CO.

Kansas City, Sept. 9.—Fancy white comb, 12@13c; No. 1, 11@12c; amber, 10@11c. Extracted, white, 5½@6c; amber, 5@5½c; dark, 4½@5c. Beeswax, 22@25c.

The receipts of comb honey are larger.

C. C. CLEMONS & CO.

Milwaukee, Oct. 18.—Fancy 1 pounds, 12½ to 13c; A No. 1, 12 to 12½c; No. 1, 11 to 12c; No. 2, 10 to 10½; mixt, amber and dark, 8 to 9c. Extracted, white, in barrels, kegs and pails, 6½ to 7c; dark, 5 to 5½c. Beeswax, 26 to 27c.

This market is in good condition for the best grades of honey, either comb or extracted. The receipts of the new crop are very fair, and some of very nice quality. The demand has been and continues to be very good, and values are firm on fancy grades and straight, uniform packing. A. V. BISHOP & CO.

New York, Dec. 20.—The market is well supplied, especially with dark. Demand is but fair for white and dark and off grades are being neglected. We quote:

Fancy white, 12 to 13c; No. 1 white, 10 to 11c; amber, 9 to 10c; dark, 7 to 8c. Stocks of extracted of all kinds are light. White, 6½ to 7c; amber, 6c; dark, 5½ to 6c; Southern, in barrels, 60 to 65c a gallon. Beeswax dull at 26 to 27c. HILDRETH BROS. & SEGELKEN.

Buffalo, Dec. 16.—Our market has become somewhat quiet since the holiday trade set in, and we consider 12 and 13c an extreme quotation for best one-pound combs now; with other grades ranging from 7 to 10 cents, according to inspection. Very little demand for extracted at from 4 to 6c. We advise the marketing of honey as readily as it can be judiciously sold. BATTERSON & CO.

San Francisco, Nov. 22.—White comb, 9½ to 10½c; amber, 7½ to 9c. Extracted, white, 7 to 7½c.; light amber, 6½ to 6½c. Beeswax, 24@27c

Stocks in this center are light and must so continue through the balance of the season. Choice extracted is especially in limited supply and is being held at comparatively fancy figures. Comb is meeting with very fair trade, considering that it has to depend mainly on local custom for an outlet. Values for all descriptions tend in favor of selling interest.

Boston, Nov. 28.—Liberal receipts with but a light demand during the holidays. As a result stocks have accumulated somewhat, and prices show a lowering tendency, still we hope for a better demand with prices at present as follows:

Fancy white, 14c; A No. 1 white, 12½ to 13c; No. 1, 11 to 12c; light amber, 10c, with no call for dark. Extracted, fair demand, light supply: White, 7 to 7½c; light amber, 6½ to 7c; Southern, 5 to 6c. BLAKE, SCOTT & LEE.

Cleveland, Nov. 29.—Fancy white, 13@14c; No. 1 white, 12@13c; A No. 1 amber, 10@11c; No. 2 amber, 9@10c; buckwheat, 8c. Extracted, white, 7c; amber, 6c; buckwheat, 5c.

A. B. WILLIAMS & CO.

Indianapolis, Oct. 3.—Fancy white comb honey, 12 to 12½c; No 1, 10 to 11c. Demand fairly good. Tar-colored comb honey, 8 to 9c, with almost no demand. Clover and basswood extracted honey, 6½ to 7c. Beeswax, 25 to 27c.

WALTER S. POUDER.